

Abstract

A method for the solid-phase synthesis of combinatorial libraries on a one-dimensional support, such as a thread, is provided. The method involves the cyclic permutation of structural features along the thread, in such a way that different structural features are repeated at a characteristic fixed frequencies along the thread. The thread is processed so as to generate a signal proportional to the activity of the compounds in the library, and the thread is then assayed by being drawn through an appropriate detector. The resulting time-domain signal is processed by Fourier transformation. Spikes in the frequency domain of the processed signal indicate the frequency at which structural features that contribute to the activity were created on the thread.

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